Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)	
	10/696,626	RAMACHANDRAN ET AL.	
	Examiner	Art Unit	
	LINDA WONG	2611	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 January 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/David C. Payne/
Supervisory Patent Examiner, Art Unit 2611

Continuation of 11. does NOT place the application in condition for allowance because: 1. Applicant's arguments filed 11/24/2008 have been fully considered but they are not persuasive.

a. Regarding claims 1,11,21, the applicant contends Yan et al fails to disclose the limitation "selectively DC-offset correcting comprises selecting ... different DC-offset correcting bandwidths based on which system baseband signal is to be processed." The examiner respectfully disagrees. Yan discloses "The DC offset correction operates to force the DC levels of the differential in-phase signals I+ and I- to a common level and the DC levels of the differential quadrature signals Q+ and Q- to a common level to reduce or eliminate distortion caused by having a DC offset between the respective differential signals." Depending on the offset of the input baseband signal as shown in Fig. 1, labels I+, I-, Q+ and Q-, the DC correction signal would perform an adjustment to provide a common level between Q+, Q- and I+, I-. In implementation, it is implied that the DC correction circuitry will perform a selection or choice in order to determine the amount of adjustment, depending on the baseband signal inputted, needed to provide a common level as discussed in the prior art. Thus, Yan discloses the recited limitation.

The applicant further contends "Yan does not appear to be responsive in any way to the system baseband signal that is to be processed." The examiner respectfully disagrees. The examiner would like to point to Fig. 1, wherein the received signal is adjusted based on the system in which the signal was transmitter. Labels 38a-d and 40a-d show that the signal is being filtered and amplified based on the system type. The DC offset correction is performed in label 56, where the signal received by label 56 is processed based on the type of system in which the signal was received. Thus, the DC offset correction circuit will perform adjustments based on the type of the system since the input signal is previously processed based on the type of system.

The applicant further contends "It is not taught, disclosed or suggested in Yan that the DC-offset element (which is distinct from the dummy LNA) is bandwidth switchable."

The examiner respectfully disagrees. Yan discloses "The DC offset correction operates to force the DC levels of the differential in-phase signals I+ and I- to a common level and the DC levels of the differential quadrature signals Q+ and Q- to a common level to reduce or eliminate distortion caused by having a DC offset between the respective differential signals." Depending on the offset of the input baseband signal as shown in Fig. 1, labels I+, I-, Q+ and Q-, the DC correction signal would perform an adjustment to provide a common level between Q+, Q- and I+, I-. In implementation, it is implied that the DC correction circuitry will perform a selection or choice in order to determine the amount of adjustment, depending on the baseband signal inputted, needed to provide a common level as discussed in the prior art. Thus, Yan discloses the recited limitation.

As previously indicated, the DC correction circuit will perform a selection or choice in order to determine the amount of adjustment. The examiner would like to point to Fig. 1. Fig. 1 of Yan et al shows that the LNAs process the received signal based on the system type. The output from the LNAs would have different bandwidths depending on the system type in which the signal was transmitted. Col. 6, lines 39-60 discloses "These differential output signal of the LNAs 40A-E result in DC offsets in the differential in-phase and quadrature signals I+, I-, Q+ and Q- due to the mixing action with the LO signal in the down-conversion circuitry. Thus the control system 32 activates the DC correction circuitry 56 to monitor the levels of the differential in-phase and quadrature signals I+, I-, Q+ and Q- and provide any necessary DC offset correction (step 110)." Since the LNA affects the input to the DC offset correction, the correction will occur within the bandwidth of the signal outputted by the LNA depending on the type of system in which the signal received was transmitted. Thus, the DC offset correction will perform switchable bandwidths depending on the type of system and the output of the LNAs. Furthermore, the amount or bandwidth in which DC offset correction will occur depends on the shift between the I and Q from the center of the I and Q plane. Depending on the input signal to the DC offset correction circuit, the bandwidth or amount needed to adjust the DC offset must be determined or selected or switched given the mode of the system in which the received signal is transmitted. Thus, when Yan discloses adjusting the I and Q in positive and negative direction, the total adjustment in the positive and negative direction of I and Q would depend on the amount or bandwidth needed to center the signal within the I and Q plane. Thus, Yan discloses "switchable bandwidth" or "selectable DC offset correction".

b. Regarding claims 2-10,12-20,22-27,29,31,32,33 such claims depend on independent claims 1,11,21. Please refer to the rebuttal of claims 1,11, and 21, respectively.

c. Regarding claims 6,7,10,15,17 and 19, the applicant traverses that filtering that it is well known in the art that filtering can be low pass, all pass or FIR "since such filters are well known in the art and can be used to perform the functionality of filtering, wherein the filter is chosen based on the inventor's choice and which would produce the output as desired by the inventor." The examiner respectfully disagrees. To prove the examiner's The examiner is providing a document indicating types of filtering systems that are well known in the art. Please refer to the reference, "Digital Filter Terminology". Note the reference above is not being used as part of the rejection. The reference is used to prove the examiner's point of view.

d. Regarding claims 9,18,26, the applicant contends the limitations "wherein the processing includes sampling at a first sampling rate for the first baseband signal and a second sampling rate for the second baseband signal" is inadequately addressed. The examiner respectfully disagrees. Yan discloses processing the received signal depending on a mode as shown in Fig.1. The down conversion is performed to convert the signal to baseband signal. (Col. 1, lines 60-65) Down conversion is adjusted by the frequency synthesizer as shown in Fig. 1. label 34. In order to down convert appropriately, Nyquist must be considered. Due to the limitations of Nyquist and the frequency of the mode of the system in which the received signal is transmitted (Col. 1, lines 11-33 discusses the different frequency range used for different system modes.), down conversion must provide different sampling rates (first and second sampling rates) to provide a baseband signals (first and second baseband signals).

e. Regarding claims 28-33 rejected based on the 1st prior art rejection, the applicant contends Peterzell fails to disclose "a direct current (DC) correction element configured to include switchable bandwidths." The examiner respectfully disagrees. The examiner would like to point to Fig. 3, wherein the received signal is filtered and adjusted based on the mode or type of the system. The DC offset correction is performed on the input signal depending on the type of system in which the received signal is transmitted. The amount of DC offset found would depend on the LO I and Q mixers as disclosed by Peterzell. Since the input signal depends on the system mode, the

amount of adjustment would depend on the LO's affect on the signal. LO will affect the received signal in different ways, since the signal received is adjusted prior to DC offset correction depending on the mode of the system. Thus, the amount of adjustment or bandwidth of the DC offset correction needed would depend on the system mode of the signal, and the affect of the LO on the signal.

f. Regarding claims 28-33 rejected based on the 2nd prior art rejection, the applicant contends Yan fails to teach "the common level to which the offset corrector forces the signals has any bearing on the bandwidth of the DC correction elements." Such assertion lies in the previous assertion that Yan fails to teach "switchable bandwidths" for DC offset correction. Such assertion has been addressed above in the rebuttal of claims 1,11 and 21. Please refer to the rebuttal above.

The applicant further contends Yan fails to disclose the limitation "wherein ... selectively DC-offset correcting comprises selecting different DC-offset correcting bandwidths based on which system baseband signal is to be processed". Such assertion has been addressed above in the rebuttal of claims 1,11 and 21. Please refer to the rebuttal above.

The applicant further contends Yan fails to disclose DC offset correction involves " switch[ing] the bandwidth of the DC-offset correcting elements." Such assertion has been addressed above in the rebuttal of claims 1,11 and 21. Please refer to the rebuttal above..